



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/626,960	07/24/2003	Clifford L. Winings	FCI-2656/C3138	3955
48580	7590	06/21/2005	EXAMINER	
WOODCOCK WASHBURN, LLP ONE LIBERTY PLACE - 46TH FLOOR PHILADELPHIA, PA 19103			LUEBKE, RENEE S	
			ART UNIT	PAPER NUMBER
			2833	

DATE MAILED: 06/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/626,960	WININGS ET AL.	
	Examiner	Art Unit	
	Renee S. Luebke	2833	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,5,6,9-11,13-21,23-26,33-36 and 38-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13-16,42-44 and 46 is/are allowed.
- 6) ☒ Claim(s) 1,6,11,23-26,33-36,38-41,45 and 47 is/are rejected.
- 7) ☒ Claim(s) 5,9,10 and 17-21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/28/05</u> . | 6) <input checked="" type="checkbox"/> Other: <u>attachments A & B</u> . |

1. Claims 1, 5, 6, 9-11, 17-21 are objected to because claim 1 does not accurately describe the connector. If the first direction is defined by the direction (x) that the board extends from the plug housing, then the flexible portion does not also extend substantially in the first direction. The substantial direction that the flexible portion extends in is in the vertical (z) direction. Appropriate correction is required.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1, 6, 11, 25, 26, 35, 38-41 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hasircoglu, et al. in view of Klosowiak, et al. In regard to claim 1 and as previously noted, the connector of Hasircoglu comprises a plug comprising a circuit board 110, a contact, a housing, a portion of the board 117 extending from the housing in a first direction (toward the top right of the page in Fig. 1), and a flexible portion 112. The flexible portion extends "substantially in the first direction" in the same manner as that of the present application. The arrangement of the flexible portion allows the portion 117 to translate in a second direction (toward and away from the top left corner in Fig. 1) that is perpendicular to the first direction. It differs from the claim only in that the flexible portion is not thinner. However, Klosowiak teaches a board that is made flexible by thinning 24, 25. This structure easily defines the location for flexing and is easier to construct than individual holes, such as that of Hasircoglu. Therefore, it would have been obvious to form the flexible portion of Hasircoglu by thinning the board as taught by Klosowiak.

In regard to claim 45, Hasircoglu comprises a plug comprising a housing, a circuit board 110, a contact, a portion of the board 117 extending from the housing, a flexible portion 112 formed in the board that permits the end portion 117 to deflect in a first direction (toward and away from the top left

corner in Fig. 1) and a receptacle 200. The flexible portion extends in a second direction (toward the top right of the page in Fig. 1) that is substantially perpendicular to the first direction.

Applicant has not separately argued the dependent claims.

4. Claims 23, 24, 33, 34 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hasircoglu and Klosowiak in view of Paagman. Although applicant has not addressed the dependent claims, the examiner has noted that claims 33, 34 and 36 depend from claim 23 and should have been included in this rejection.

5. Claim 47 is rejected under 35 U.S.C. 102(e) as being anticipated by Hasircoglu, et al. This connector comprises a plug 100 comprising a circuit board 110, a contact finger 190, a housing 120, 610, a portion 117 of the board extending from the housing, a flexible portion 112, a receptacle 200, a contact 22, and a housing 220, 710 having a slot 732. As shown in Figs. 8B and 8C, the flexible portion goes up and down and it is, therefore seen to be wave-shaped or undulating. It is noted that the dictionary does not significantly distinguish between wave and undulating (see attachments).

6. Claims 42-44, 46 and 13-16 are allowed.

In regard to claim 42, it is noted that the prior art fails to show or teach the claimed connector with an end portion that is both thin and carries a contact (the arrangement shown in Fig. 15).

7. Claims 5, 9, 10 and 17-21 would be allowable if rewritten to overcome the objections set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Art Unit: 2833

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. It is suggested that responses to this final action be faxed to:
(703) 872-9306

Please refrain from sending a confirmation copy, as noted in 37 CFR 1.6(d) and 1.8(b).

Alternatively, responses may be mailed to:

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mrs. Renee Luebke at (571) 272-2009. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mrs. Paula Bradley, can be reached at (571) 272-2800, extension 33.



Renee S. Luebke
Primary Patent Examiner
January 26, 2005

Cambridge Advanced Learner's Dictionary

[Look it up](#)

We publish dictionaries for people learning English all around the world

[Find out more...](#)

Buy this dictionary

Search another dictionary...

- ☒ Learner's
- ☒ American English
- ☒ Idioms
- ☒ Phrasal Verbs
- ☒ French / English
- ☒ Spanish / English

Textbooks

Browse the full range of textbooks available from Cambridge



Definition

undulating

[Show phonetics]

adjective FORMAL

1 describing or having small hills and slopes that look like waves:

undulating roads

I love the gently undulating hills of the Dales.

2 moving gently up and down:

undulating waves

undulate

[Show phonetics]

verb [I]

(from [Cambridge Advanced Learner's Dictionary](#))

► **Related sites from Cambridge:** Cambridge Popular Science - Explore Tomorrow Today

See also...

- Top 50 Words 2004
- Win a Cambridge book!
- Cambridge International Corpus

Resources

- Online Activities and Worksheets
- Cambridge English Language Teaching
- Data for language researchers

© Cambridge University Press 2004. [Privacy Policy](#)

Attachment A



undulating

Search

☒ Dictionary ☐ Thesaurus ☐ Web
[Home](#)Premium: [Sign up](#) | [Login](#)[See Offer Details](#)

Who is this singer?

© 2004 An

Answer to get \$100 FREE!

☐ [Snoop Dogg](#) ☐ [Usher](#) ☐ [Michael Jackson](#)

ADVERTISEMENT

Dictionary - [Thesaurus](#) - [Web](#)Top Web Results for "undulating"1 entry found for *undulating*.

ADVERTISEMENT

un·du·late  [Pronunciation Key](#) (ŭn'jə-lā't, ŭn'dyə-, -də-)

v. un·du·lat·ed, un·du·lat·ing, un·du·lates

v. tr.

1. To cause to move in a smooth wavelike motion.
2. To give a wavelike appearance or form to.

v. intr.

1. To move in waves or with a smooth, wavelike motion.
See Synonyms at [swing](#).
2. To have a wavelike appearance or form.
3. To increase and decrease in volume or pitch as if in waves.

adj. (-lĭt, -lā't)

Having a wavy outline or appearance: *leaves with undulate margins*.

Attachment B